

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 9, line 10, with the following written paragraph:

As shown in FIG.3B, the bi-polar electrostatic chuck has an inner electrode 28 and an outer electrode 30. The inner electrode 28 and the outer electrode 30 both connects to the DC power 24 and the AC bias power 22. The capacitive impedance 321 for isolation of the inner electrode 28 and the capacitive impedance 322 for isolation of the outer electrode 30 are used to prevent direct currents from entering the AC bias power 22 because capacitors to direct currents are open-circuit (capactive impedance $Z_c = 1/j\omega C$, the frequency of direct current $\omega=0$, $Z_c=\infty$). The inductive impedance 341 for isolation of the inner electrode 28 and the inductive impedance 342 for isolation of the outer electrode 30 are used to prevent alternating currents from entering the DC power 24.

Please replace the paragraph beginning at page 9, line 19, with the following written paragraph:

The capacitive impedance 321 for isolation of the inner electrode 28 and the capacitive impedance 322 for isolation of the outer electrode 30 have different impedance values because of different transmitting lines. The different impedance values will lead to the power outputs difference between the inner electrode 28 and the outer electrode 30 (the power of AC bias power 22 $P_{\text{generator}}$ minus the power of the consumption of the impedance $P_{\text{impedance}}$ equals to power output P_{out}). In this situation when proceeding with ion-bombardment onto the wafer 18, surface currents will be generated. Surface currents on the wafer 18 will damage the gate oxides of the devices on the wafer 18. To avoid damaging the gate oxides of the devices on the wafer 18, the inner electrode 28 power output and the outer electrode 30 of the bi-polar electrostatic chuck 201 power output should be the same. That is to say the impedance of the inner electrode 28 and the impedance of the inner electrode 30 have the same impedance values. To achieve this goal, an impedance matching circuit 42 is added in the present invention connecting the AC bias power 22 to the capacitive impedance 321 for isolation of the inner electrode 28 and the capacitive impedance 322 for isolation of the outer

electrode 30 to let the capacitive impedance 321 for isolation of the inner electrode 28 and the capacitive impedance 322 for isolation of the outer electrode 30 have the same impedance values. And then the inner electrode power output will be the same with the outer electrode power output to avoid damaging gate oxides of the devices on the wafer 18.

Please replace the paragraph beginning at page 10, line 15, with the following written paragraph:

One preferred embodiment of the present invention is as shown in FIG.3C, the impedance matching circuit mainly includes an adjustable capacitor 441 of the inner electrode 28, an adjustable capacitor 442 of the outer electrode 30, an adjustable inductor 461 of the inner electrode 28, an adjustable inductor 462 of the outer electrode 30, a power-measuring device 50, a power comparator 51, and an automatic impedance-regulator 52. One terminal of the impedance matching circuit 42 connects to the AC bias power 22 and the other terminal of the impedance matching circuit 42 connects to both the capacitive impedance 321 for isolation of the inner electrode 28 and the capacitive impedance 322 for isolation of the outer electrode 30.